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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,381	10/22/2003	Kenji Kondo	10407-67US (A3038MT-US1)	8667
570 7590 04/16/2007 AKIN GUMP STRAUSS HAUER & FELD, L.L.P. ONE COMMERCE SQUARE 2005 MARKET STREET, SUITE 2200 PHILADELPHIA, PA 19103			EXAMINER ALUNKAL, THOMAS D	
			ART UNIT	PAPER NUMBER
			2627	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/691,381

Applicant(s)

KONDO ET AL.

Examiner

Thomas D. Alunkal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 9 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 9 is drawn to a "program" *per se* as recited in the preamble and as such is non-statutory subject matter. See MPEP § 2106.01 ~~2400 IV.B.1.a~~ ^{2106.01} _^. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g. Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held non-statutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical

"things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishibashi et al (hereafter Ishibashi)(US 5,808,979).

Regarding claim 1, Ishibashi discloses an optical disc drive loaded with an optical disc that includes tracks on which a plurality of marks are formed (see Abstract), the optical disc drive comprising: an optical system for focusing a light beam on the optical disc loaded (Abstract, optical reproduction system), a photodetector which includes multiple areas to receive the light beam that has been reflected from the optical disc and which generates multiple read signals representing quantities of light received at the areas (Figure 1, Element 1 and Column 3, lines 48-52), the multiple read signals including a first read signal and a second read signal (Figure 1, outputs to adders 2 and 3), each read signal having at least one frequency component (Column 5, line 62 –

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Column 6, line 9), a first filter that receives the first read signal (Figure 1, Element 5a), attenuates a frequency component of the first read signal, and outputs a first processed signal, the first processed signal having the attenuated frequency component of the first read signal, the frequency component to be attenuated being determined by the lengths of the marks which are formed on a track (Column 5, line 62 – Column 6, line 9 and lines 16-35), a second filter that receives the second read signal (Figure 1, Element 5b), attenuates a frequency component of the second read signal, and outputs a second processed signal, the second processed signal having the attenuated frequency component of the second read signal, the frequency component to be attenuated being determined by the lengths of the marks which are formed on a track (Column 5, line 62 – Column 6, line 9 and lines 16-35), a phase difference detecting section for detecting a phase difference between the first and second processed signals (Figure 1, Element 8a and Column 3, lines 61-64), a signal generating section for generating a tracking error signal, representing a positional relationship between a focal point of the light beam on the optical disc and a target one of the tracks, based on the phase difference (Figure 1, Elements 8a and 9 and Column 3, lines 61-67), and a control section for generating a control signal based on the tracking error signal wherein in accordance with the control signal, the optical disc drive controls the focal point of the light beam across the tracks on the optical disc (Column 5, lines 52-58).

Regarding claim 2, Ishibashi discloses wherein the optical system includes: a light source, which emits the light beam (Column 3, lines 28-32), a lens, which focuses the light beam on the optical disc (Abstract. The lens is inherently provided within

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reproduction system), an actuator which adjusts a position of the lens, and wherein in response to the control signal, the optical disc drive drives the actuator to adjust the position of the lens such that the focal point of the light beam is located on the center of the target track (Column 5, lines 52-58. The actuator is inherently included within the servo system).

Regarding claim 3, Ishibashi discloses wherein each of the first and second filters removes the attenuated frequency component (Column 5, line 62 – Column 6, line 9. More specifically, the long pit frequency is removed).

Regarding claim 4, Ishibashi discloses wherein each of the first and second filters removes a frequency component of a particular frequency that is determined by the minimum length of the marks ((Column 5, line 62 – Column 6, line 9. More specifically, the short pit frequency is amplified).

Regarding claim 5, Ishibashi discloses wherein each of the first and second filters removes frequency components of which the frequencies are equal to or higher than the particular frequency (Column 6, lines 36-55).

Regarding claim 6, Ishibashi discloses wherein each of the first and second filters further removes a frequency component of a frequency that corresponds to a mark of a second shortest length (Column 6, lines 36-55 (long pit length)).

Regarding claim 7, Ishibashi discloses wherein the optical disc drive determines the frequency by a linear velocity of the track and the length of the mark at the focal point of the light beam (Column 3, lines 32-39), and wherein each of the first and

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second filters attenuates the frequency component of the determined frequency (Column 5, line 62 – Column 6, line 9).

Method claim 8 is drawn to the method of using the corresponding apparatus claimed in claim 1. Therefore method claim 8 corresponds to apparatus claim 1 and is rejected for the same reasons of anticipation as used above.

Regarding claim 9, as stated above, claim 9 recites non-statutory subject. Thus the method steps recited in claim 9 are rejected for the same reasons as provided for claim 8.

Regarding claim 10, Ishibashi discloses a chip circuit for use in an optical disc drive (Figures 2A, 3, and 5A), the optical disc drive having: an optical system for focusing a light beam on an optical disc that includes tracks on which a plurality of marks are formed (Abstract), and a photodetector which includes multiple areas to receive the light beam that has been reflected from the optical disc and which generates multiple read signals representing quantities of light received at the areas (Figure 1, Element 1 and Column 3, lines 48-52), the multiple read signals including a first read signal and a second read signal (Figure 1, outputs to adders 2 and 3), each read signal having at least one frequency component (Column 5, line 62 – Column 6, line 9), the optical disc drive controlling a focal point of the light beam across the tracks on the optical disc in accordance with a control signal (Column 5, lines 52-58), wherein the chip circuit comprises: a first filter that receives the first read signal (Figure 1, Element 5a), attenuates a frequency component of the first read signal, and outputs a first processed signal, the first processed signal having the attenuated frequency component

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of the first read signal, the frequency component to be attenuated being determined by the lengths of the marks which are formed on a track (Column 5, line 62 – Column 6, line 9 and lines 16-35), a second filter that receives the second read signal (Figure 1, Element 5b), attenuates a frequency component of the second read signal, and outputs a second processed signal, the second processed signal having the attenuated frequency component of the second read signal, the frequency component to be attenuated being determined by the lengths of the marks which are formed on a track (Column 5, line 62 – Column 6, line 9 and lines 16-35), a phase difference detecting section for detecting a phase difference between the first and second processed signals (Figure 1, Element 8a and Column 3, lines 61-64), a signal generating section for generating a tracking error signal, representing a positional relationship between a focal point of the light beam on the optical disc and a target one of the tracks, based on the phase difference (Figure 1, Elements 8a and 9 and Column 3, lines 61-67), and a control section for generating a control signal based on the tracking error signal (Column 5, lines 52-58).

Conclusion

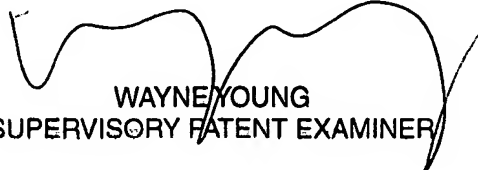
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamamoto et al (US 6,028,826) disclose an optical disk apparatus performing correction of phase difference tracking error signal. Aoki et al (US 5,602,823) disclose an optical recording medium having pre-formatted patterns arranged by shifting phases.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Alunkal whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thomas Alunkal


WAYNE YOUNG
SUPERVISORY PATENT EXAMINER